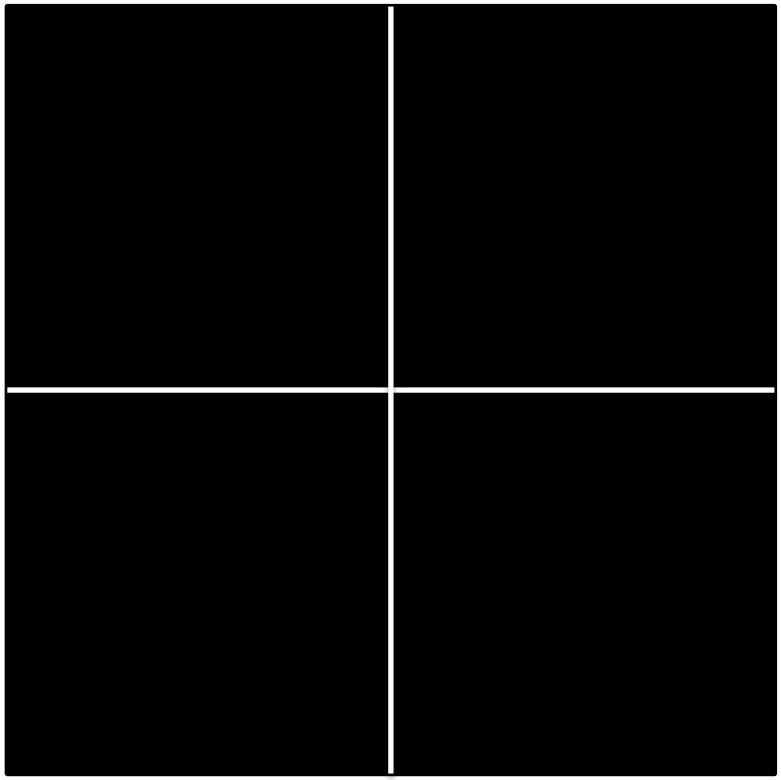

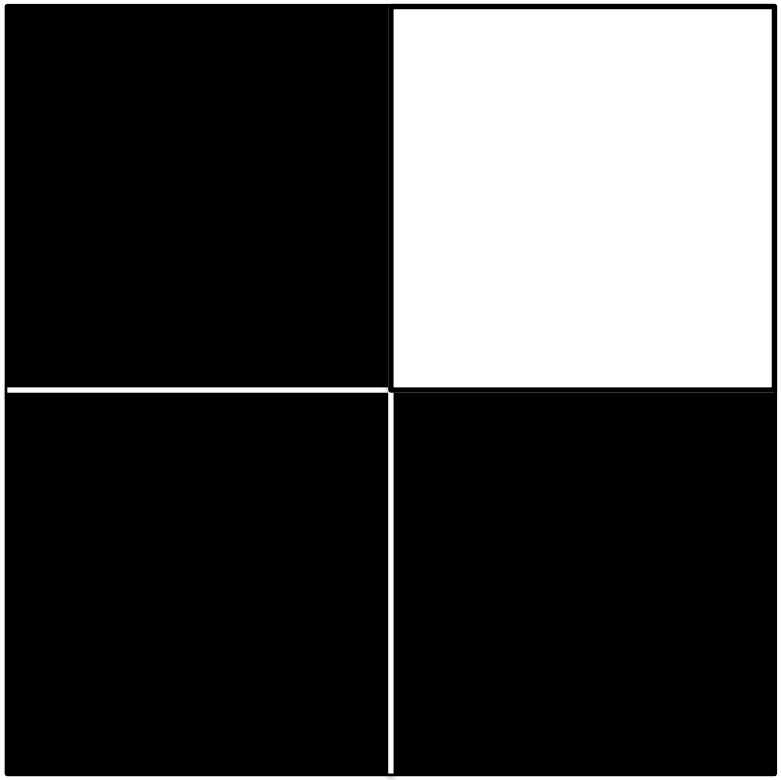

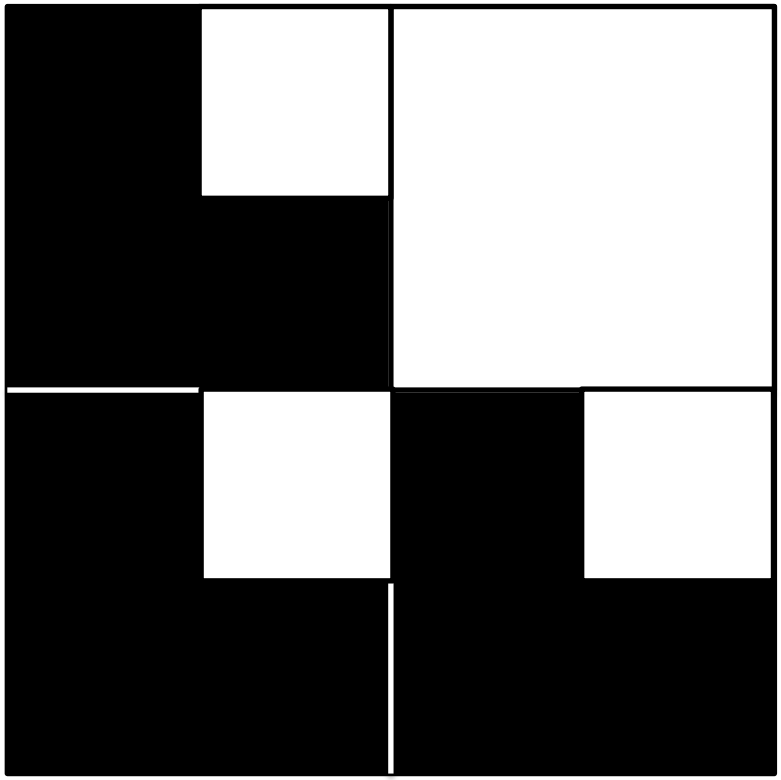

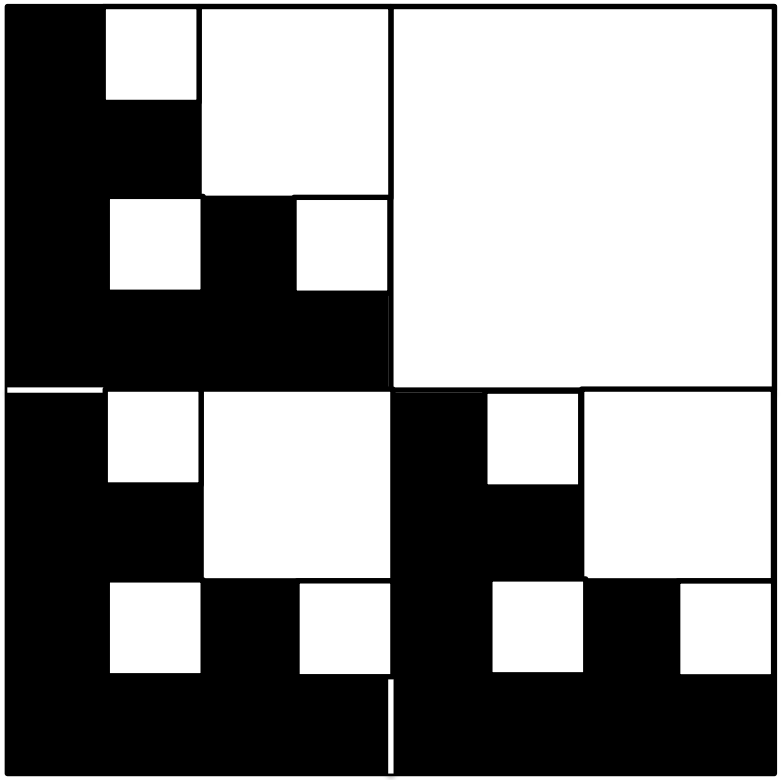

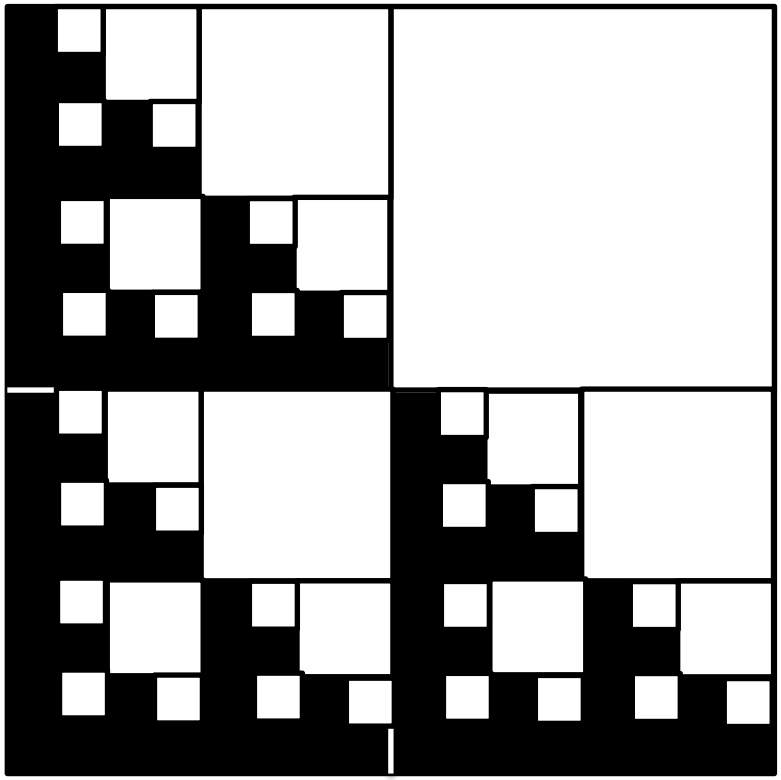

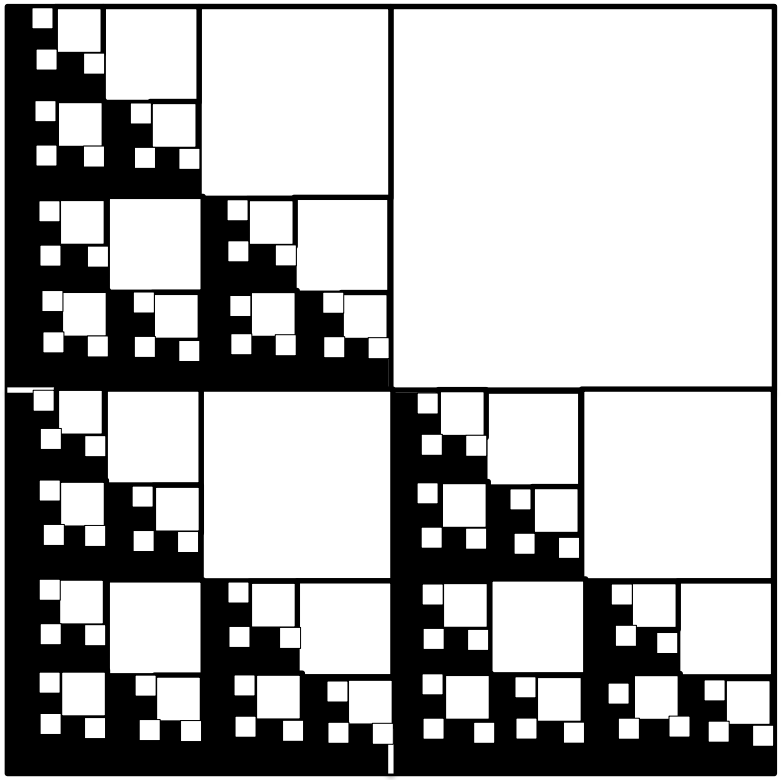

$\underline{\text{MULT}(x, y)}$

$n := \max(\text{length}(x), \text{length}(y))$

if $n = 1$ **then return** $x[1] \wedge y[1]$

make x and y of equal length by padding with leading 0s

$x_1 :=$ left $\lceil n/2 \rceil$ bits of x; $x_0 :=$ right $\lfloor n/2 \rfloor$ bits of x

$y_1 :=$ left $\lceil n/2 \rceil$ bits of y; $y_0 :=$ right $\lfloor n/2 \rfloor$ bits of y

$s := \text{ADD}(x_1, x_0)$; $t := \text{ADD}(y_1, y_0)$

$a := MULT(x_1, y_1); b := \text{MULT}(x_0, y_0); c := \text{MULT}(s, t)$

$u := \text{SUB}(c, \text{ADD}(a, b))$

append n 0s to a

append $\lfloor n/2 \rfloor$ 0s to u

return $\text{ADD}(a, \text{ADD}(u, b))$